

Minutes of the December 5, 2007, Energy Commission Business Meeting.

The meeting was called to order at 10:03 a.m. by Chairman Jackalyne Pfannenstiel. The Pledge of Allegiance was lead by Chairman Pfannenstiel.

Present:

Jackalyne Pfannenstiel, Chairman  
James D. Boyd, Vice Chair  
Arthur H. Rosenfeld, Commissioner  
John L. Geesman, Commissioner  
Jeffrey D. Byron, Commissioner

1. CONSENT CALENDAR. (Items on the Consent Calendar will be taken up and voted on as a group. A Commissioner may request that an item be moved and discussed later in the meeting.)
  - a. FASTER FREIGHT, CLEANER AIR 2008 CONFERENCE. Possible approval of \$4,950, staff time and use of the Energy Commission's name to co-sponsor the Faster Freight, Cleaner Air 2008 Conference in Los Angeles, February 25-27, 2008. Contact: Asish Gautam.
  - b. HORIZON WIND ENERGY. Possible approval of Contract 500-07-021 with Horizon Wind Energy for a no-cost agreement to operate and collect wind data from four meteorological towers currently owned by the Energy Commission for the useful life of the towers, not to exceed three years. Ownership and responsibility for the towers will be transferred to Horizon Wind Energy, and Horizon will assume responsibility for decommissioning in accordance with industry standards and Bureau of Land Management requirements. Contact: Michael Kane.
  - c. BRAND IDENTITY, INC. Possible approval of Amendment 1 to Contract 150-06-014 with Brand Identity, Inc. to add \$6,110 for additional color concepts, design alterations (Task 1) and as many as 60 more graphs (Task 2) not currently part of the original contract. The schedule is being revised to reflect alterations to the proceeding schedule and availability of materials to the designer. (ERPA funding.) Contact: Lorraine White.
  - d. ENERGY MODELING FORUM. Possible approval of Contract 400-07-010 for \$15,000 with Energy Modeling Forum for the Energy Commission to join the Affiliates Program of the Energy Modeling Forum at Stanford University. Participation in the program will enhance staff's analytical skills and support refinement of energy modeling programs. (ERPA funding.) Contact: Ruben Tavares.
  - e. NEW BUILDINGS INSTITUTE, INC. Possible approval of Contract 500-07-023 with New Buildings Institute, Inc., for \$25,000 to co-sponsor the Leading Edge Student Design Competition, which encourages teams of architecture students to develop facility designs integrating energy efficiency, sustainability, functionality,

and esthetics. (PIER electricity funding.) Contact: Chris Scruton.

- f. GAS TECHNOLOGY INSTITUTE. Possible approval of Amendment 1 to Contract 500-05-017, adding \$24,573 to install a motorized chimney damper system necessary to complete field testing of a natural gas fired aluminum smelter burner. (2006 and 2007 PIER natural gas funding.) Contact: Michael Lozano.
- g. APX, INC. Possible approval of Amendment 1 to Contract 400-06-005 with APX, Inc. to modify service level agreements pertaining to data storage and archiving for the System Development and Technical Operations of the Western Renewable Energy Generation Information System. (RRTF funding.) Contact Rasa Keanini.

*Item 1f. was moved to the December 19, 2007, agenda. Commissioner Rosenfeld moved and Commissioner Geesman seconded approval of the remaining items on the Consent Calendar. The vote was unanimous. (5-0)*

- 2. MEMORANDUM OF UNDERSTANDING WITH MAHARASHTRA ELECTRICITY REGULATORY COMMISSION. Possible approval of a Memorandum of Understanding between the Energy Commission, the California Public Utilities Commission, the Lawrence Berkeley National Laboratory, and the Maharashtra Electricity Regulatory Commission of Maharashtra State, India, to explore potential future collaborations on policies and programs related to energy efficiency, procurement planning, and electricity markets and regulation. Commissioner Arthur H. Rosenfeld.

*Commissioner Byron moved and Commissioner Boyd seconded approval of the Memorandum of Understanding. The vote was unanimous. (5-0)*

- 3. ELECTRIC TRANSMISSION CORRIDOR ZONES. Possible adoption of regulations to implement the Energy Commission's program for designating electric transmission corridor zones under Public Resources Code sections 25330-25341 (added by SB 1059 (Escutia) Chapter 638, Statutes of 2006). Contact: Arlene Ichien. (10 minutes)

*Commissioner Geesman moved and Commissioner Byron seconded adoption of the regulations. The vote was unanimous. (5-0)*

- 4. CARRIZO ENERGY SOLAR FARM PROJECT (07-AFC-8). Contact: Mary Dyas (10 minutes)
  - a. Possible approval of the Executive Director's data adequacy recommendation for Carrizo Energy, LLC, Application for Certification of the Carrizo Energy Solar Farm Project, a nominal 177 megawatts (MW) net solar thermal power plant, in San Luis Obispo County, California.

*Commissioner Geesman moved and Commissioner Byron seconded approval of the Executive Director's recommendation that the AFC be found data inadequate at this time. The vote was unanimous. (5-0)*

- 5. PALOMAR ENERGY PROJECT (01-AFC-24C). Possible approval of a petition to install and operate a gas turbine inlet air chiller and add a water storage tank for the Palomar Energy Project. The chiller will replace the existing evaporative chiller system, adding up to 40 MW of available electrical output by summer 2008. Contact: Paula David. (10 minutes)

*Commissioner Boyd moved and Commissioner Geesman seconded approval of the petition. The vote was unanimous. (5-0)*

6. KINGS RIVER CONSERVATION DISTRICT COMMUNITY POWER PROJECT (07-AFC-7). Contact: Che McFarlin. (10 minutes)

- a. Possible adoption of the Executive Director's data adequacy recommendation for the Kings River Conservation District Community Power Project.

*Commissioner Geesman moved and Commissioner Byron seconded adoption of the Executive Director's recommendation that the AFC be found data adequate. The vote was unanimous. (5-0)*

- b. Possible appointment of a siting committee for the Kings River Community Power Project.

*Chairman Pfannenstiel assigned herself as presiding member and Commissioner Geesman as second member of the committee for the project. Commissioner Boyd moved and Commissioner Rosenfeld seconded approval of the committee assignment. The vote was unanimous. (5-0)*

7. SOUTH BAY REPLACEMENT PROJECT (06-AFC-3). Possible adoption of the Committee Order Terminating Proceedings in the South Bay Replacement Project. Contact: Kenneth Celli. (5 minutes)

*Commissioner Geesman moved and Commissioner Byron seconded adoption of the Committee Order. The vote was unanimous. (5-0)*

8. VALERO COGENERATION PROJECT (01-AFC-5). Possible adoption of Order Terminating Certification for Phase II of the Valero Cogeneration Project. Contact: Kevin W. Bell. (5 minutes)

*Commissioner Geesman moved and Commissioner Boyd seconded adoption of the Order. The vote was unanimous. (5-0)*

9. GATEWAY GENERATING STATION PROJECT (00-AFC-1C). Possible approval of Pacific Gas and Electric's petition to amend the existing certificate for the Gateway Generating Station Project to change from R-134 to anhydrous ammonia refrigerant for the inlet chiller. Contact: Ron Yasny. (5 minutes)

*Commissioner Geesman moved and Commissioner Byron seconded approval of the amendment. The vote was unanimous. (5-0)*

10. CONTRA COSTA COUNTY. Possible approval of a loan of \$2,960,000 to Contra Costa County to install two cogeneration systems at Contra Costa Regional Medical Center and the juvenile hall totaling 425 kW, a new steam boiler at the old jail, and lighting upgrades at nine county facilities. These energy efficiency projects are estimated to save \$296,000 annually and have a simple payback of 10 years. (ECAA and/or bond funding.) Contact: Joseph Wang. (10 minutes)

*Commissioner Geesman moved and Commissioner Boyd seconded approval of the loan. The vote was unanimous. (5-0)*

11. COUNTY OF ALAMEDA. Possible approval of a loan of \$1,890,000 to the County of Alameda to upgrade of lighting systems at numerous county government facilities. This project is estimated to save approximately 2,779,898 kWh and \$353,899 annually, and has a simple payback of approximately 5.3 years based on the loan amount. (ECAA and/or bond funding.) Contact Jim Holland (10 minutes)

*Commissioner Rosenfeld moved and Commissioner Byron seconded approval of the loan. The vote was unanimous. (5-0)*

12. MARKETPOINT, INC. Possible approval of Purchase Order 07-445.01-012 for \$27,000 to MarketPoint, Inc. to renew the Energy Commission's North American Regional Gas model license agreement and associated software packages. (ERPA funding.) Contact: Ruben Tavares/Nancy Tronaas. (5 minutes)

*Commissioner Boyd moved and Commissioner Byron seconded approval of Purchase Order 07-445.01-012. The vote was unanimous. (5-0)*

13. RC CONSULTING. Possible approval of Purchase Order 07-409.00-007 for \$240,000 to RC Consulting to analyze the October 2007, April 2007, October 2008 and April 2009 Vehicle Registration Databases from the Department of Motor Vehicles to support Energy Commission transportation activities. (ERPA funding.) Contact: Gene Strecker. (5 minutes)

*Commissioner Boyd moved and Commissioner Byron seconded approval of Purchase Order 07-409.00-007. The vote was unanimous. (5-0)*

14. UNIVERSITY OF CALIFORNIA, DAVIS. Possible approval of Amendment 11 to Contract 300-97-009 with the Regents of the University of California, Davis to add \$50,000 and extend for one year the existing Interagency Agreement for student interns to provide support for electric and natural gas forecasting, demand analysis and impacts of energy efficiency programs, and legal support for power plant licensing cases, contracts, loans, grants and Public Records Act requests. (ERPA funding.) Contact: Belen Valencia. (5 minutes.)

*Commissioner Byron moved and Commissioner Geesman seconded approval of Amendment 11 to Contract 300-97-009. The vote was unanimous. (5-0)*

15. SCRIPPS INSTITUTION OF OCEANOGRAPHY. Possible approval of Contract 500-07-017 with the University of San Diego, Scripps Institution of Oceanography, for \$2,300,000 to continue core climate change research. Under this proposal, Scripps will install and run meteorological and hydrological stations in key areas in the state, enhance the available climatic and hydrologic records, investigate climate extremes, and lead the preparation of the 2008 Scenarios Study for the Climate Action Team. (PIER electricity funding.) Contact: Guido Franco. (5 minutes)

*Commissioner Rosenfeld moved and Commissioner Geesman seconded approval of Contract 500-07-017. The vote was unanimous. (5-0)*

16. PACIFIC NORTHWEST NATIONAL LABORATORY Possible approval of PIER Work Authorization MR-076 for \$1,160,000 with the U. S. Department of Energy-Pacific Northwest National Laboratory for Extreme Event Research to understand large cascading blackout propagation. MR-076 is under the UC Master Research Agreement Number 500-02-004 with The Regents of the University of California – Office of the President/CIEE. (PIER electricity funding.) Contact: Jamie Patterson. (5 minutes)

*Commissioner Geesman moved and Commissioner Rosenfeld seconded approval of Work Authorization MR-076. The vote was unanimous. (5-0)*

17. ALTERNATIVE ENERGY SYSTEMS CONSULTING. Possible approval of Contract 500-07-020 with Alternative Energy Systems Consulting for \$1,150,000 to apply and demonstrate intelligent agent technology that can successfully coordinate energy production and delivery from wind generation resources and storage. (PIER electricity funding.) Contact: Jamie Patterson. (5 minutes)

*Commissioner Geesman moved and Commissioner Byron seconded approval of Contract 500-07-020. The vote was unanimous. (5-0)*

18. ASSOCIATION OF CALIFORNIA WATER AGENCIES. Possible approval of Contract 500-07-022 for \$399,286 with the Association of California Water Agencies for the assessment and field demonstration of the ability to obtain electrical peak load reductions and water conservation by shifting end-use customers from volumetric water meters to time of use water meters. (PIER electricity funding.) Contact: Mike Gravely. (5 minutes)

*Commissioner Rosenfeld moved and Commissioner Geesman seconded approval of Contract 500-07-022. The vote was unanimous. (5-0)*

19. UNIVERSITY OF CALIFORNIA, DAVIS. Possible approval of PIER Work Authorization MRA-02-077 for \$402,269 with The Regents of the University of California, Davis, for the California Wind Energy Collaborative. MRA-02-077 is under the UC Master Research Agreement Number 500-02-004 with The Regents of the University of California – Office of the President/CIEE. This project will provide organizational and research capabilities to benefit development of wind energy systems in California's unique physical and regulatory environment. (PIER electricity funding.) Contact: Dora Yen-Nakafuji. (5 minutes)

*Commissioner Geesman moved and Commissioner Rosenfeld seconded approval of Work Authorization MRA-02-077. The vote was unanimous. (5-0)*

20. UNIVERSITY OF CALIFORNIA, OFFICE OF THE PRESIDENT. Possible approval of Amendment 3 to Contract 500-01-043 with the University of California, Office of the President to add \$2,405,863, expand the scope of work and extend the contract by six months. This amendment will continue long-term research into demand response enabling technologies, rename the project *Enabling Technologies Development Program*, and allow research in enabling technologies to improve utility distribution system automation and end use devices in buildings. (PIER electricity funding.). Contact: Kristy Chew. (5 minutes)

*Commissioner Rosenfeld moved and Commissioner Geesman seconded approval of Amendment 3 to Contract 500-01-043. The vote was unanimous. (5-0)*

21. UNIVERSITY OF CALIFORNIA OFFICE OF THE PRESIDENT. Possible approval of two grants for proposals that were competitively selected in response to the 2007 Research Opportunity Notice for the Enabling Technology Development Program. (PIER electricity funding.) Contact: Kristy Chew. (5 minutes)
- a. EPRI, Palo Alto, CA: *Decision Support Tool for Demand Response Trigger System to Connect Retail to Wholesale Electricity Markets*, \$250,000.
  - b. EnerNex Corporation, Knoxville, TN: *Requirements, Architecture and Tools for Implementing Reliable Command and Control for a Demand Responsive Energy Grid*, \$250,000.

*Commissioner Rosenfeld moved and Commissioner Geesman seconded approval of the two grants. The vote was unanimous. (5-0)*

22. UNIVERSITY OF CALIFORNIA, BERKELEY. Possible approval of Amendment 1 to PIER Work Authorization MR-070 with The Regents of the University of California, Berkeley, to add \$450,000 for a third year of work for *Fault Analysis in Underground Cables*. The additional funding will allow the contractor to perform technical diagnostics and conduct concluding studies. This project is under the UC Master Research Agreement Number 500-02-004 with The Regents of the University of California – Office of the President/CIEE. (PIER electricity funding.) Contact: Rachel MacDonald. (5 minutes)

*Commissioner Geesman moved and Commissioner Rosenfeld seconded approval of Amendment 1 to Work Authorization MR-070. The vote was unanimous. (5-0)*

23. RENEWABLES NATURAL GAS REPLACEMENT ALTERNATIVES. Possible approval of four projects totaling \$1,767,302, under the PIER Natural Gas Program Renewables Research, Development and Demonstration Grant Solicitation. (PIER natural gas funding.) Contact: Prab Sethi. (5 minutes).
- a. Gas Technology Institute: *Production and Conditioning of High Sulfur Biogas for Fuel Cell Combined Heat and Power Generation*, \$499,921.
  - b. Lawrence Berkeley National Lab: *Biogas-Powered 100 kW Microturbine with Ultra-Low Emission for CHP Applications*, \$500,000.
  - c. Diversified Energy Corporation: *Reducing California Industrial Natural Gas Consumption through Advanced Biomass Gasification*, \$500,000.
  - d. Sacramento Municipal Utility District: *Removal of Siloxane and H<sub>2</sub>S from Biogas using Microwave Technology*, \$267,381.

*Commissioner Boyd moved and Commissioner Rosenfeld seconded approval of the four projects. The vote was unanimous. (5-0)*

24. TRUSTEES OF THE CALIFORNIA STATE UNIVERSITY. Possible approval of five grant applications, totaling \$474,988, in response to Solicitation Cycle 07-01 of the Energy Innovations Small Grant Program. (PIER funding.) Contact Dave Michel. (5 minutes)
- a. 07-01-37, CleanEngen Group, LLC, Castro Valley, CA: *Air Independent Internal Oxidation Steam Generator*, \$95,000.
  - b. 07-01-03, Northwestern University, Evanston, IL: *Novel Solid Oxide Fuel Cell Anodes for Use with Coal and Biomass-Derived Syngas*, \$94,993.
  - c. 07-01-01, Texas A&M University, College Station, TX: *Novel Heat Transfer Fluid for Heating, Ventilating, and Air Conditioning (HVAC), and Microelectronics Applications*, \$95,000.
  - d. 07-01-34, C/e-Solutions, Sacramento, CA: *Novel Energy Generation Process For Wastewater Treatment Plant Operations*, \$94,989.
  - e. 07-01-29, University of Arkansas, Little Rock, AR: *Thermo-chemical Process Platforms to Utilize Crude Glycerin for Hydrogen Production and Electricity Generation*, \$95,000.

*Commissioner Byron moved and Commissioner Geesman seconded approval of the five grants. The vote was unanimous. (5-0)*

25. BUILDING ENERGY RESEARCH GRANT AWARDS. Possible approval of four grant awards, totaling \$765,377, under the Energy Commission's Building Energy Research Grant Program's second solicitation. (PIER funding.) Contact: Cheri Davis. (5 minutes)
- a. California Lighting Technology Center: *Decorative Residential LED Fixtures*, \$198,891
  - b. Davis Energy Group: *Indirect Evaporative Heat Recovery Ventilator*, \$199,916
  - c. Western Cooling Efficiency Center: *Improving the Cost Effectiveness of Floor Cooling Systems*, \$188,515
  - d. Manufactured Housing Research Alliance: *Factory-Built Housing Heating and Cooling Distribution Systems Research*, \$ 178,055

*Commissioner Rosenfeld moved and Commissioner Geesman seconded approval of the four grant awards. The vote was unanimous. (5-0)*

26. ORDER INSTITUTING RULEMAKING FOR APPLIANCE EFFICIENCY REGULATIONS. Possible approval of an Order Instituting Rulemaking authorizing a proceeding to amend the Energy Commission's appliance efficiency regulations to include standards for general purpose lighting under Assembly Bill 1109 (Huffman, Chapter 534, Statutes of 2007). The rulemaking may include other appliance types and/or clarification of existing regulations. Contact: Harinder Singh. (5 minutes)

*Commissioner Rosenfeld moved and Commissioner Geesman seconded approval of the Order. The vote was unanimous. (5-0)*

27. **STATE PLAN TO INCREASE THE USE OF ALTERNATIVE TRANSPORTATION FUELS.** Possible adoption of proposed amendments to the *State Plan to Increase the Use of Alternative Transportation Fuels in California* in response to Assembly Bill 1007, (Pavley, Chapter 371, Statutes of 2005). This report, adopted by the full Commission at the October 31, 2007, business meeting, is being amended to incorporate the California Air Resources Board's requested changes. The report describes actions and conditions needed to increase the use of alternative fuels to reduce petroleum use, curb greenhouse gases, and increase California biofuel production. Contact: Tim Olson. (10 minutes)

*Commissioner Boyd moved and Commissioner Byron seconded adoption of the proposed amendments to the State Plan to Increase the Use of Alternative Transportation Fuels in California. The vote was unanimous. (5-0)*

28. **GEOLOGIC CARBON SEQUESTRATION STRATEGIES FOR CALIFORNIA.** Possible adoption of *Geologic Carbon Sequestration Strategies for California* in response to Assembly Bill 1925 (Blakeslee, Chapter 471, Statutes of 2006). This report, produced by the Energy Commission in coordination with the Department of Conservation in support of the *2007 Integrated Energy Policy Report*, is a technical evaluation and assessment of carbon capture and sequestration technologies, and of the economic, statutory, and regulatory issues affecting adoption of geologic carbon sequestration in the state. Contact: Kelly Birkinshaw/Elizabeth Burton. (15 minutes)

*Commissioner Boyd moved and Commissioner Byron seconded adoption of Geologic Carbon Sequestration Strategies for California. The vote was unanimous. (5-0)*

29. **2007 INTEGRATED ENERGY POLICY REPORT.** Possible approval of the *2007 Integrated Energy Policy Report*. Contact: Lorraine White. (30 minutes)

*Commissioner Boyd moved and Commissioner Byron seconded approval of the 2007 Integrated Energy Policy Report and errata as discussed in today's meeting. The vote was unanimous. (5-0)*

30. **Minutes**

- a. Approval of the October 31, 2007, Business Meeting Minutes.

*Commissioner Byron moved and Commissioner Geesman seconded approval of the October 31 minutes. The vote was 4-0-1. Commissioner Rosenfeld abstained.*

- b. Approval of the November 7, 2007, Business Meeting Minutes.

*Commissioner Boyd moved and Commissioner Geesman seconded approval of the November 7 minutes. The vote was 4-0-1. Commissioner Byron abstained.*

31. **Commission Committee Presentations/Discussion** – None.

32. **Chief Counsel's Report** – Assistant Chief Counsel Jonathan Blees requested a closed session to discuss litigation pursuant to Government Code Section 11126(e)(2) and (3).

33. **Executive Director's Report** – None.  
Closed session may be held



34. **Legislative Director's Report** – Legislative Director Mike Smith gave the report.

35. **Public Adviser's Report** - None

36. **Public Comment**

Todd O'Connor, O'Connor Consulting

There being no further business, the meeting was adjourned to a closed session on personnel matters pursuant to Government Code, Section 11126(a).

Respectfully submitted

HARRIET KALLEMEYN  
Secretary to the Commission

**Appearances:**

Mr. Scott Galati, Galati Blek, LLP

Mr. Taylor Miller, Sempra Energy

Mr. Bill Kissinger, Bingham, McCutchen LLP

Mr. Daniel Baerman, San Diego Gas & Electric

Ms. Michaelleen Mason, Western States Petroleum Association

Mr. Joe Sparano, Western States Petroleum Association

Ms. Lara Ettenson, National Resources Defense Council

Mr. Mark Krause, Pacific Gas & Electric

Mr. Carl Sillsbee, Southern California Edison